

Revision to the OSHA Weighting System

Introduction

OSHA's enforcement activities are the cornerstone of the Agency's strategic focus on reducing worker injuries, illnesses, and fatalities. To achieve the Agency's goals to effectively use taxpayer-funded resources, enforcement activities should focus on the most hazardous conditions and areas the Agency has determined are critical. Compliance safety and health officer (CSHO) activity is not composed solely of conducting enforcement inspections. Due to OSHA's expanded programs, a CSHO must perform a variety of functions, to include compliance assistance.

Although the Occupational Safety and Health Act specifies no inspection quota, the number of inspections has always been an important metric in measuring OSHA's enforcement activities. However, a simple accounting of inspections does not demonstrate the real impact of the enforcement activity. In 2015, the Agency implemented an enforcement weighting system designed to promote inspections that require a greater amount of CSHO and Area Office focus by assigning a numerical weighted value, known as enforcement units (EUs), to more complex inspections. The revised system will continue to measure OSHA's enforcement activity and will add new metrics to measure other field-related and outreach activities.

OSHA has identified two objectives for this revision to the Enforcement Weighting System (EWS), now known as the OSHA Weighting System (OWS):

- To continue to develop and support a management system to focus enforcement activities on critical and strategic areas where the Agency's efforts can have the most impact and
- To further promote the appropriate allocation of resources to support OSHA's balanced approach to promoting safe and healthy workplaces.

Purpose of the Revision

To increase worker safety, OSHA will align the system with the Agency's priorities to conduct highly impactful inspections to address hazards that put employees at the greatest risk of injury, illness, and death. The expected result is increased worker safety. Under the existing enforcement weighting system, approximately 11 percent of OSHA inspections received additional EUs. Through a change in the EU weight, the revised system will measure 45 percent of OSHA inspections.

OSHA's objective is to continue to support the development of management systems to enable field managers to focus resources on critical and strategic areas that will have the greatest impact in reducing workplace fatalities, injuries, and illnesses. OWS will emphasize the use of both enforcement and compliance assistance in a way that allows OSHA to take a proactive approach to workplace safety and health rather than simply reacting to workplace incidents after they have happened. For example, OSHA's emphasis programs target industry sectors or worksites where OSHA has determined employees are exposed to serious, uncontrolled hazards putting them at

risk for injury or death. OWS will use these emphasis programs to focus resources in a predictive or proactive manner. OSHA encourages employers to take a proactive approach to workplace safety and health by instituting management systems that identify and prevent hazardous conditions. OWS applies the same identification and prevention approach to OSHA's enforcement strategy.

A second phase of OWS will recognize and account for non-inspection activities that OSHA's field staff must engage in and that are important tools in OSHA's balanced approach to assure safe and healthy workplaces. The revised system will also provide OSHA with a more comprehensive measure of how field resources are used to meet the Agency's mission of preventing workplace fatalities, injuries, and illnesses.

How the Weighting System Has Evolved

As in the original enforcement weighting system, OWS assigns additional EUs to more complex inspections and to inspections that cover hazards of special concern to the Agency. Also, in line with the original system, OWS will not assign EUs for citations but instead for inspections completed in accordance with accepted protocols and emphasis programs. One notable change in the new system is the introduction of new types of weighted activity. In addition to tracking enforcement activity, the OWS tracks essential enforcement support functions (i.e., activity that is not part of an inspection but is an important field-related activity, such as non-formal complaints and rapid response investigations) as well as compliance assistance activities.

Enforcement Weighting

Inspections will be weighted based on a combination of factors including whether the inspection targets a highly hazardous workplace or process, whether the inspection is conducted as part of a strategic hazard emphasis program, and by the complexity of the inspection to include the intensity of resources used. Some weighted inspections will be triggered by discrete events such as when OSHA finds significant patterns of non-compliance or fatalities. Additional targeted inspections will be weighted to support a proactive approach to impacting high-hazard workplaces.

OWS will give additional weight to programmed inspections to target what the agency refers to as the "fatal four/focus four." The leading causes of workplace fatalities in construction (excluding highway collisions) are these four hazards: falls, struck-by object, electrocutions, and caught-in/between.¹ OSHA considers proactive inspections addressing these hazards both within and outside the construction industry to be highly impactful with the potential to prevent the types of incidents that are most likely to result in the death or serious injury of a worker.

OSHA will continue to underscore the importance of the resource-intensive and impactful inspections to address hazards associated with heat, workplace violence, and ergonomics by adding weights to these categories. CSHOs will continue to follow the existing system and established agency procedures to assess hazards and ensure hazard abatement.

¹ This includes workers struck, caught, or crushed by structures, machines, equipment, or material.

An annual summary of inspections allows OSHA to evaluate the enforcement activity accomplished in a specific fiscal year, to adjust the activities and weights to align with the agency's strategic plan, and to focus on hazards that are of special concern to Department and agency leadership.

This revision to the weighting system will render prior EUs incomparable. OSHA will address this by applying the weights in the OWS retroactively and running the EWS and OWS concurrently to assess the performance and appropriateness of the new system.

Comparison of Current EWS and Proposed OWS Applied to FY2016 - FY2018 Inspections

	Current EWS	Proposed OWS
FY2016 Total Inspections	32,005	32,005
% Inspections Weighted	13.8%	44.5%
Average EU Value	1.26	1.88
Total EUs	40,199	60,054
FY2017 Total Inspections	32,396	32,396
% Inspections Weighted	12.1%	47.2%
Average EU Value	1.19	1.91
Total EUs	38,692	61,885
FY2018 Total Inspections	32,023	32,023
% Inspections Weighted	11.8%	45.8%
Average EU Value	1.21	1.91
Total EUs	38,760	61,197

Total EUs and average EU values do not include Rapid Response Investigations or non-formal complaint investigations applied under the current EWS.

Inspections that meet the criteria for more than one weighted category are assigned the category with the highest EU value.

Essential Enforcement Support Function Weighting

This is a newly-established measure of area office activity by enforcement staff. This includes other employer engagement activities that, while important tools within OSHA's balanced approach, divert CSHO time and resources that could otherwise be spent on inspections. The revised system more explicitly recognizes how these activities contribute to OSHA's mission. A final determination of the activities and the weights those activities will receive has not been made, but a preliminary list is included below.

While the measurement details of this activity are not set at this time, OSHA tracks the activities under consideration and will continue to do so for the remainder of FY2019. This will allow the application of weighting to these activities and to calculate the Activity Units for FY2020 in order to assess the performance and appropriateness of weighting each activity.

Compliance Assistance Weighting

This is a newly-established measure of compliance assistance activity. OSHA will determine what activities to include and how weights will be assigned to those activities. Below is a preliminary list of activities. As with the original EWS, this measurement needs to be modeled and tested. Like the new Essential Enforcement Support Function weighting, Compliance Assistance weighting allows OSHA to more fully measure the impact of other agency tools in addition to enforcement activity.

Unit Values

The original EU equation calculates the base weight for a given category. For some categories, the base weight is less than the desired OWS weight for the following reason:

All EUs were calculated using the average lapse time and hours per inspection for all OSHA inspections to provide the base weight. At the time of the EWS implementation, the average lapse time for all inspections was 36 days, and the average time per inspection for all inspections was 27.8 hours. The weight calculation was performed with the equation:

$$EU = \frac{\left(\frac{\text{Category Specific Avg Lapse Time}}{\text{All Inspection Avg Lapse Time}} \right) + \left(\frac{\text{Category Specific Avg Hours Per Inspection}}{\text{All Inspection Avg Hours Per Inspection}} \right)}{2}$$

However, this equation accounts for the resource requirement but does not account for the value or impact of the inspection activity.

For the OWS enforcement section, the formula equation above will be used as a base EU and then multiplied by a numerical factor that qualitatively corresponds to the enforcement priorities and impact explained in OSHA's yearly Operation Plan, which directly supports the Department's Fiscal Year 2018-2022 Strategic Plan, Strategic Goal 2, Promote Safe Jobs and Fair Workplaces for All Americans, and OSHA's Strategic Objective 2.1, Secure Safe and Healthful Working Conditions for America's Workers, for each OWS enforcement inspection category.

All of the aforementioned inspection types are categorized in new EU value groups.

OWS Groups and OWS weight factors

<u>Inspection Type</u>	<u>Base EU Weight</u>	<u>OWS EU Factor</u>	<u>Final EU Value</u>
<u>Group A</u>	<u>5.5</u>	<u>1.27</u>	<u>7</u>
<u>Group B</u>	<u>2.5</u>	<u>2</u>	<u>5</u>
<u>Group C</u>	<u>0.5</u>	<u>6</u>	<u>3</u>
<u>Group D</u>	<u>1.5</u>	<u>1.33</u>	<u>2</u>
<u>Group E</u>	<u>1</u>	<u>1</u>	<u>1</u>

Enforcement Units

Enforcement cases will be assigned the following weight:

1. Group A: Includes the most time intensive, complex, and high-priority inspections.
7 EUs
 - a. Criminal cases
 - b. Significant cases
2. Group B: Includes inspections for high-priority hazards and those that are more complex than average and/or are of high lasting value. *5 EUs*
 - a. Inspections following fatalities and catastrophes
 - b. Chemical plant NEP and Process Safety Management (PSM) Inspections
3. Group C: Includes programmed inspections following an established emphasis program (EP) for hazards that are among the leading causes of death in the workplace.
3 EUs
 - a. Caught-in hazards—e.g., trenching, equipment operations, oil & gas
 - b. Electrical hazards—e.g., overhead power lines, electrical wiring methods
 - c. Fall Hazards—e.g. scaffolds, elevated walking working surfaces
 - d. Struck-by hazards—e.g., highway work zones, landscaping, material handling
4. Group D: Includes programmed inspections following an established EP for priority hazards that are somewhat time intensive and are a high priority. This category also includes inspections for novel hazards and programmed inspections undertaken in conjunction with an established enforcement policy addressing associated serious safety and health hazards. *2 EUs*
 - a. Amputation hazards
 - b. Combustible dust
 - c. Ergonomics
 - d. Federal agency inspections
 - e. Heat hazards
 - f. Non-PEL overexposures
 - g. Workplace violence hazards
 - h. Permit required confined space hazards—e.g., grain storage or maritime or construction
 - i. Personal sampling—e.g., air contaminants or noise
 - j. Site specific targeting
5. Group E: Includes all other inspections not otherwise listed. *1 EU*

6. Regions may submit other regional or local emphasis programs for approval and weighting if they are not already covered under items 1-4 and assign them two to three EUs.

(See the Appendix for a representation of the OWS using FY2016-FY2018 Inspection data).

Activity Units - Preliminary

Essential enforcement support activities will be assigned the following weights:

1. One Activity Unit for every nine
 - a. Rapid Response Investigations
 - b. Phone/Fax/Email Investigations

Additional Activity Units are under consideration for activities such as processing and responding to Freedom of Information Act requests, electronic correspondence responses, state plan monitoring, and interventions.

Compliance Assistance Units - Preliminary

Compliance assistance weighted activities include:

1. Voluntary Protection Program evaluations
2. Activities supporting OSHA Strategic Partnerships
3. Activities supporting Alliances
4. Compliance Assistance activities—e.g., speeches or staffing an OSHA information booth

Appendix
FY2016 - FY2018 Detailed Inspection Allocation under Revised OSHA
Weighting System (OWS)

Inspection Metric	Coding Criteria	FY2016	FY2017	FY2018
Total Inspections	Existing Criteria	32,005	32,396	32,023
7 EU Categories	Coding Criteria	FY2016	FY2017	FY2018
<i>Significant Case</i>	<i>Additional Code = N-08-SIGCASE</i>	161	76	81
<i>Criminal Case*</i>	<i>[Criteria TBD]</i>	--	--	--
5 EU Categories	Coding Criteria	FY2016	FY2017	FY2018
Fatality/Catastrophe Inspections	Initiating Type = Fatality/Catastrophe	880	836	941
Process Safety Management	CHEMNEP NEP code	238	137	231
3 EU Categories	Coding Criteria	FY2016	FY2017	FY2018
General Duty Clause Violations and Hazard Alerts Addressing Falls, Caught-in, Struck-by, and Electrical Hazards	TOTAL**	860	642	668
	5(a)(1) with "Fall" keyword	224	117	128
	HAL with "Fall" keyword	53	50	47
	5(a)(1) with "Struck By" keyword	431	342	352
	HAL with "Struck By" keyword	97	88	116
	5(a)(1) with "Caught In" keyword	90	70	59
	HAL with "Caught In" keyword	32	23	23
	5(a)(1) with "Electrical" keyword	23	15	10
	HAL with "Electrical" keyword	16	20	12
Emphasis Programs Related to Falls, Caught-in, Struck-by, and Electrical Hazards***	TOTAL	9,102	10,516	10,211
	AUTOSUP emphasis program code	23	9	10
	BOATPROG emphasis program code	2	45	12
	BRIDGE emphasis program code	1	1	0
	CONSTR6 emphasis program code	1,812	1,935	1,805
	CRANE emphasis program code	27	48	32
	DEMO3 emphasis program code	5	3	4
	ELECGI emphasis program code	0	0	14
	FABMETSH emphasis program code	105	85	83
	FALL emphasis program code	4,961	5,580	5,490
	FEDCON emphasis program code	0	1	1
	FEDCONST emphasis program code	133	105	99
	FOODPRO emphasis program code	4	3	0
	FORKLIFT emphasis program code	85	125	155
	GIFALL emphasis program code	33	29	51
	GRAIN emphasis program code	61	27	34
	GUTREH emphasis program code	99	104	111
HIGHWAY emphasis program code	2	2	0	
HIRISE emphasis program code	3	6	9	

	LANDSCAPE emphasis program code	1	0	1
	LANDSCPE emphasis program code	19	19	19
	LNGSHR6 emphasis program code	3	9	10
	LOCALTARG emphasis program code	271	621	340
	LOGGING emphasis program code	3	5	14
	LONGSHORE emphasis program code	23	19	39
	MARITIME emphasis program code	47	56	16
	MARITIME PRGM emphasis program code	12	17	13
	MAST emphasis program code	0	0	0
	MEATINDUSTRY emphasis program code	0	2	1
	METALFAB emphasis program code	8	15	23
	OHPWRLNE emphasis program code	0	2	0
	OILGAS emphasis program code	162	115	138
	PALLET emphasis program code	43	44	30
	PIV emphasis program code	15	12	11
	PLATFORM emphasis program code	0	11	8
	PROGCON emphasis program code	128	233	231
	REFUSE emphasis program code	29	42	35
	REPVEHICLE emphasis program code	2	9	19
	RESCON emphasis program code	9	17	11
	SANDY emphasis program code	0	2	0
	SHIP emphasis program code	20	30	12
	STORMCON emphasis program code	2	102	52
	TREETRIM emphasis program code	5	3	2
	TRENCH emphasis program code	393	407	553
	WORKZONE emphasis program code	8	6	5
	XBOATPRG emphasis program code	4	2	0
	XFALLELEC emphasis program code	539	608	716
2 EU Categories	Coding Criteria	FY2016	FY2017	FY2018
NEP/REP/LEPs Receiving 2EUs***	TOTAL	1,053	1,205	1,063
	AMPUTATE emphasis program code	829	976	851
	AUTOSERV emphasis program code	66	83	133
	DAIRYFARM emphasis program code	11	9	3
	DUSTEXPL emphasis program code	70	67	50
	DUSTEXPL9 emphasis program code	0	0	0
	HOTDAYS emphasis program code	8	5	10
	POULTRY4 emphasis program code	4	14	10
	POULTRY6 emphasis program code	12	4	0
	SCRAP emphasis program code	19	10	0
	SST emphasis program code	18	1	0
	VIGENIND emphasis program code	13	12	0

	WOOD emphasis program code	3	24	6
Federal Agency Inspections	TOTAL	260	412	264
	FEDCOMP emphasis program code	10	33	15
	FEDSAFE emphasis program code	193	246	200
	FEDSAFE9 emphasis program code	29	86	7
	FEDTARG emphasis program code	28	45	42
	BLOOD emphasis program code	0	2	0
<i>General Duty Clause Violations and Hazard Alerts Addressing Ergonomics, Heat, Workplace Violence, and Non-PEL Overexposures</i>	TOTAL**	345	176	207
	<i>5(a)(1) with "Ergo" keyword</i>	9	2	0
	<i>HAL with "Ergo" keyword</i>	79	47	32
	<i>5(a)(1) with "Heat" keyword</i>	52	22	31
	<i>HAL with "Heat" keyword</i>	186	84	102
	<i>5(a)(1) with "Workplace Violence" keyword</i>	12	7	5
	<i>HAL with "Workplace Violence" keyword</i>	80	54	53
	<i>5(a)(1) with "Non-PEL" keyword</i>	2	1	1
	<i>HAL with "Non-PEL" keyword</i>	21	8	16
Personal Sampling	Existing EU Criteria	1,822	1,678	1,473
1 EU Category	Coding Criteria	FY2016	FY2017	FY2018
	Does not meet any criteria above	17,766	17,111	17,352

* Criminal referrals are not currently tracked in the OSHA Information System (OIS). However, these inspections represent a small number of total enforcement cases.

** Total includes the number of inspections with one or more general duty clause violations or Hazard Alert Letters that qualify for additional EU credit.

*** To receive additional EUs, inspections must be initiated as programmed under one of the listed emphasis programs as the primary emphasis program code.